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Standard Guide for Recovered Carbon Black – Shelf Life¹

This standard is issued under the fixed designation D8585; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide defines the shelf life of recovered carbon black.

1.2 *Units*—The values stated in SI units are to be regarded as the standard. No other units of measurement are included in this standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

D1506 Test Methods for Carbon Black—Ash Content

D1509 Test Methods for Carbon Black—Heating Loss

¹ This guide is under the jurisdiction of ASTM Committee D36 on Recovered Carbon Black (rCB) and is the direct responsibility of Subcommittee D36.40 on Environment, Safety and Sustainability.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D1618 Test Method for Carbon Black Extractables— Transmittance of Toluene Extract

3. Significance and Use

3.1 This guide defines the shelf life of recovered carbon black when stored under proper conditions.

4. Recovered Carbon Black Shelf Life

4.1 Tests by ASTM Committee D36 on aged samples of recovered carbon black have demonstrated that the physical attributes of recovered carbon black, agglomerate size, transmittance of toluene extract (Test Method D1618) and ash content (Test Method D1506), and its application performance in a model sulfur cured SBR formulation have not been found to deteriorate with age. While the key physical attributes remain the same, the heating loss (Test Method D1509) of recovered carbon black will increase under typical storage conditions. Although higher than carbon black, in most cases, this equilibrium level of moisture is at a satisfactory level for use by customers. However, it is recommended that after extended storage (more than 12 months), the heat loss of recovered carbon black inventory should be checked to assure the material has been properly stored and protected against exposure to high levels of moisture, and that the level of moisture on the product is satisfactory for use in the customers' processes and applications.

4.2 Based on these studies by ASTM Committee D36, recovered carbon black has a shelf life of at least 12 months when stored away from water and high humidity environments.

5. Keywords

5.1 rCB; recovered carbon black; shelf life